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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,694	08/21/2000	Teiji Kohara	001046	8839

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EXAMINER

TON, ANABEL

ART UNIT PAPER NUMBER

2875

DATE MAILED: 03/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/622,694

Applicant(s)

KOHARA ET AL.

Examiner

Anabel M Ton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-22 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Election/Restrictions***

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. Claims 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Chakrabarti et al (4,814,959).
2. Chakrabarti discloses a lighting reflector comprised of plastic on which a reflecting layer is formed. With regards to the reflector being comprised of a thermoplastic resin containing an alicyclic structure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the reflector made of a thermoplastic resin containing an alicyclic structure, since it is well known that a thermoplastic resin is a polycarbonate as plastic is and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416
3. Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakrabarti et al as applied to claim 1 above, and further in view of Riser et al.
4. Chakrabarti discloses the abovementioned reflector. Riser discloses a reflector with a lens for condensing light of a light source reflected by said reflector (figs 8 and 10); a lamp cover allowing passage of light of a light source reflected by said reflector (81); a lamp cap covering part or all of a light source (80) a light guide having a light incident face to which is introduced at least one type of light selected from the group of light from a light source and light from a light source reflected by a reflector and an

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emission face emitting the incident light introduced from the incident surface to the outside(76).

5. With regards to the reflecting layer has a thickness of 5 to 10,000 nm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the layer thickness from 5 –10,000 nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

6. With regards to the reflecting layer is provided by vapor deposition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use vapor deposition as a method of applying a reflective layer to a reflector, since this particular method is old and well known in the art and is commonly practiced.

***Allowable Subject Matter***

7. Claims 12-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 19-22 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art cited does not recite or teach the following:\

- The substrate is comprised of a resin composition containing a thermoplastic resin containing an alicyclic structure and at least one compounding agent selected from the group comprising a partial ether compound of a polyhydric alcohol and/or a partial ester compound of a polyhydric alcohol, a soft polymer, a

filler, and a compound incompatible with the thermoplastic resin having an alicyclic structure;

- The substrate is comprised of a resin composition comprised of a thermoplastic resin containing an alicyclic structure to which is blended a soft polymer having a glass transition temperature of not more than 30°C;
- The substrate is comprised of a resin composition comprised of a thermoplastic resin containing an alicyclic structure to which is blended a crystalline polymer;
- The substrate is comprised of at least one type of thermoplastic resin containing an alicyclic structure selected from the group comprising a ring-opening polymer of a norbornene-based monomer, a hydrogenate of a ring opening polymer of a norbornene-based monomer, and an addition polymer including addition type repeating units of an at least three-ring norbornene-based monomer;
- The amount of repeating units containing polar groups in the thermoplastic resin containing an alicyclic structure is not more than 50 wt%;
- The thermoplastic resin containing an alicyclic structure has a melt flow rate, measured by at a temperature of 280°C and a load of 2.16 kgf, of 4 to 100 g/10 min;
- The thermoplastic resin containing an alicyclic structure has repeating units comprised of ring structures other than norbornene rings;
- A lens for lighting equipment comprised of a resin composition comprising: a thermoplastic resin containing an alicyclic structure and at least one compounding agent selected from the group comprising a partial ether

compound of a polyhydric alcohol and/or a partial ester compound of a polyhydric alcohol, a soft polymer, a filler, and a compound incompatible with the thermoplastic resin having an alicyclic structure;

- A lamp cover for a lighting equipment provided in front of a light source and allowing passage of light of the light source, said lamp cover for a lighting equipment comprised of a thermoplastic resin containing an alicyclic structure;
- A lamp cap for a lighting equipment covering part or all of a light source, said lamp cap comprised of a thermoplastic resin containing an alicyclic structure;
- A light guide for a lighting equipment provided in a light chamber of the lighting equipment and having a light incident face to which is introduced at least one type of light selected from the group of light from a light source and light from a light source reflected by a reflector and an emission face emitting the incident light introduced from the incident surface to the outside, said light guide for a lighting equipment comprised of a thermoplastic resin containing an alicyclic structure having a glass transition temperature of at least 90°C.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yanagase et al, Kabumoto et al and Won et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M Ton whose telephone number is (703) 305-1084. The examiner can normally be reached on 08:00-16:30.

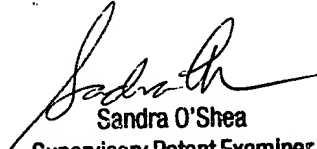
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Anabel M Ton  
Examiner  
Art Unit 2875

AMT  
March 5, 2002

  
Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800